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March 11, 2002

## BOX PCT

Commissioner for Patents  
Washington, D.C. 20231

PCT/FR00/02447  
-filed September 10, 1999

Re: Application of Herve EFFORSAT

**MACHINING MACHINE TOOL WITH JUDICIOUS ARRANGEMENT  
OF THE ELEMENTS STORING THE FLUIDS REQUIRED FOR THE  
VARIOUS FUNCTIONS OF SAID MACHINE TOOL**

Assignee: **RENAULT AUTOMATION CAMOU**

Our Ref: **Q68739**

Dear Sir:

The following documents and fees are submitted herewith in connection with the above application for the purpose of entering the National stage under 35 U.S.C. § 371 and in accordance with Chapter II of the Patent Cooperation Treaty:

- ☒ an English translation of the International Application.
- ☒ 2 sheets of drawings.
- ☒ a Preliminary Amendment

The Declaration and Power of Attorney, and executed Assignment with Form PTO-1595 will be submitted at a later date.

It is assumed that copies of the International Application as filed, the International Search Report and a complete copy of the references cited therein, the International Preliminary Examination Report, copy of certified priority document, and any Articles 19 and 34 amendments as required by § 371(c) will be supplied directly by the International Bureau, but if further copies are needed, the undersigned can easily provide them upon request.

**Please see attached preliminary amendment before calculating Government filing fee.**

The Government filing fee is calculated as follows:

Total claims	5	-	20	=	0	x	\$18.00	=	\$0.00
Independent claims	2	-	3	=	0	x	\$84.00	=	\$0.00
Base Fee									\$890.00

**TOTAL FEE**

**\$890.00**

A check for the statutory filing fee of \$890.00 is attached. You are also directed and authorized to charge or credit any difference or overpayment to Deposit Account No. 19-4880.



SUGHRUE MION, PLLC

Entering National Stage of PCT/FR00/02447  
Attorney Docket Q68739

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The Commissioner is hereby authorized to charge any fees under 37 C.F.R. §§ 1.16, 1.17 and 1.492 which may be required during the entire pendency of the application to Deposit Account No. 19-4880. A duplicate copy of this transmittal letter is attached.

Priority is claimed from:

Country

FRANCE

Application No

FR9911791

Filing Date

September 10, 1999

Respectfully submitted,

A handwritten signature in dark ink, appearing to read 'Robert V. Sloan'.

Robert V. Sloan

Registration No. 22,775

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Date: March 11, 2002

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JC10 Rec'd PCT/PTO 11 MAR 2002

**PATENT APPLICATION**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of

Herve EFFORSAT

PCT/FR00/02447

Appln. No.: not yet assigned

Attorney Docket Q68739

Confirmation No.: Not yet assigned

Group Art Unit: Not yet assigned

Filed: March 11, 2002

Examiner: Not yet assigned

For: MACHINING MACHINE TOOL WITH JUDICIOUS ARRANGEMENT OF THE  
ELEMENTS STORING THE FLUIDS REQUIRED FOR THE VARIOUS FUNCTIONS  
OF SAID MACHINE TOOL

**PRELIMINARY AMENDMENT**

Commissioner for Patents  
Washington, D.C. 20231

Sir:

Prior to examination, please amend the above-identified application as follows:

**IN THE SPECIFICATION:**

**Please amend the specification as follows:**

Page 1, after the title insert the following statement:

--This is a National stage entry under 35 U.S.C. § 371 of Application No.

PCT/FR00/02447 filed September 6, 2000; the disclosure of which is incorporated herein by  
reference.--

Page 2, delete the fifth full paragraph in its entirety and insert the following:

--According to the main feature of the invention, the machine tool of the type that  
requires the presence of annex equipments operating the fluids stored in the tanks, said annex  
equipments being linked by means of a frame to the remaining of the machine tool, is remarkable

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Attorney Docket Q68739

in that said frame is manufactured so as to create in its width a plurality of liquid proof compartments capable of being used as tanks for fluids.--

Page 3, after the third full paragraph insert the heading

**BRIEF DESCRIPTION OF THE DRAWINGS**

Page 5, amend the second full paragraph as follows:

--It is understood that the machine tool with a judicious arrangement of the elements for storing the fluids necessary to the functions of said machine tool, which have been described and represented hereabove, was so described and represented for publication rather than limitation purposes. --

**IN THE CLAIMS:**

**Please cancel claim 1 without prejudice or disclaimer.**

**Please enter the following amended claims:**

1. (Amended) Machining machine tool of the type that requires the presence of annex equipments operating the fluids stored in the tanks , said annex equipments being linked by means of a frame to the remaining of the machine tool , wherein said frame is manufacturing so as to create in its width a plurality of liquid proof compartments capable of being used as tanks for fluids.
2. (Amended) Machining machine tool according to Claim 1, wherein said frame is carrying boxes containing said annex equipments and is adopting the shape of a parallelepiped, at least a part of the volume of which is partitioned so as to form tanks that are liquid proof among themselves.

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3. (Amended) Machine tool according to claim 2, wherein said frame is provided, on its upper part and communication with each tank, with at least one interface input/output for the connection of said tanks with said built-up annex equipments.

4. (Amended) Machine tool according to claim 2, wherein independent tanks are pre-formed so as to be integrated into the width of said frame.

**IN THE ABSTRACT:**

**Please add the required Abstract of the Disclosure found on the attached unnumbered sheet.**

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**REMARKS**

The application has been amended to place the application in better form for examination by deleting the multiple dependencies therein, providing an appropriate heading within the specification, and adding the proper required Abstract. An unclear sentence has been removed from the specification and the unnecessary references numerals have been removed from the claims. No new matter has been entered. Entry and consideration of this Amendment and an early and favorable action on the merits is respectfully requested.

Respectfully submitted,



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Date: March 11, 2002

**ABSTRACT**

A machining tool (M) of the type that requires the presence of annex equipments (200) operating the fluids stored in the tanks (R), said annex equipments (200) being linked by means of a frame (100) to the remaining of the machine tool (M). This machine tool (M) is remarkable in that said frame (100) is manufactured so as to create in its width a plurality of liquid proof compartments (130) capable of being used as tanks (R) for fluids.

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Attorney Docket Q68739

**APPENDIX**

**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

**IN THE SPECIFICATION:**

**The specification is changed as follows:**

Page 1, after the title insert the following statement:

--This is a National stage entry under 35 U.S.C. § 371 of Application No.

PCT/FR00/02447 filed September 6, 2000; the disclosure of which is incorporated herein by reference.--

Page 2, delete the fifth full paragraph in its entirety and insert the following:

--According to the main feature of the invention, the machine tool of the type that requires the presence of annex equipments operating the fluids stored in the tanks, said annex equipments being linked by means of a frame to the remaining of the machine tool, is remarkable in that said frame is manufactured so as to create in its width a plurality of liquid proof compartments capable of being used as tanks for fluids.--

Page 3, after the third full paragraph insert the heading

**BRIEF DESCRIPTION OF THE DRAWINGS**

Page 5, amend the second full paragraph as follows:

--It is understood that the machine tool with a judicious arrangement of the elements for storing the fluids necessary to the functions of said machine tool, which have been described and represented hereabove, was so described and represented for publication rather than limitation purposes. ~~Of course, various arrangements, modification and improvements may be brought to~~



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the above example, without for that matter going beyond the scope of the invention taken in its wider aspects and spirit.--

# **IN THE CLAIMS:**

**Claims 1 is canceled.**

**The claims are amended as follows:**

21. (Amended) Machining machine tool (~~M~~) of the type that requires the presence of annex equipments (200) operating the fluids stored in the tanks (~~R~~), said annex equipments (~~200~~) being linked by means of a frame (100) to the remaining of the machine tool (~~M~~) according to claim 1, wherein said frame (100) is manufacturing so as to create in its width a plurality of liquid proof compartments (~~130~~) capable of being used as tanks (~~R~~) for fluids.

32. (Amended) Machining machine tool (~~M~~) according to Claims 1 and 2, wherein said frame (100) is carrying boxes (~~110 and 120~~) containing said annex equipments (~~200~~) and is adopting the shape of a parallelepiped, at least a part of the volume of which is partitioned so as to form tanks (~~R~~) that are liquid proof among themselves.

43. (Amended) Machine tool (~~M~~) according to claim 32, wherein said frame (100) if provided, on its upper part and communication with each tank, with at least one interface input/output (~~140~~) for the connection of said tanks (~~R~~) with said built-up annex equipments (~~200~~).

54. (Amended) Machine tool (~~M~~) according to claim 32, wherein independent tanks (~~R~~) are pre-formed so as to be integrated into the width of said frame (~~100~~).

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**IN THE ABSTRACT OF DISCLOSURE:**

**The proper required Abstract has been added.**

2/p/RTS

- 1 -

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MACHINING MACHINE TOOL WITH JUDICIOUS ARRANGEMENT  
OF THE ELEMENTS STORING THE FLUIDS REQUIRED FOR THE  
VARIOUS FUNCTIONS OF SAID MACHINE TOOL

5 FIELD OF APPLICATION OF THE INVENTION

This invention deals with adaptations allowing to better distribute the equipments for "functions" that constitute the immediate environment of a high speed machining machine tool and that are indispensable to its operation.

10 DESCRIPTION OF PRIOR ART

Classically, a high speed machining machine tool is comprised of a machining station in which a tool is working, the motions of which along a plurality of axis are implemented by a drive station, the various  
15 functionalities of the machine tool as well as the actuating gears constituting said machine requiring in the back of said machine a set of autonomous functions, such as for instance:

- a hydraulic group,
- 20 - an air conditioning group,
- a spraying liquid supercharger,
- a cooling group,
- a greasing group,
- a group for purifying the air drawn from the cutting  
25 zone,
- an electrical box for power and control of the machine tool,
- etc.

Classically, the equipments performing such functions are  
30 manufactured and bought separately, then mechanically assembled on a frame. The jointings for the supplies of fluids and electricity are made afterwards.

Among such equipments, the cooling and hydraulic groups require and are provided each with a liquid tank called  
35 "tank", manufactured separately for the two functions and then assembled on the support-frame of the machine tool,

fixed on the frame and carrying themselves the instruments necessary to the operation of the fluid it stores: pumps, jointings, filters and pipes.

As shown on Figure 1, the frame B of a machine tool M is provided on its back with a frame 100 carrying several boxes 110 and 120 capable of containing the whole of the functions required for the good functioning of the machine tool M. Therefore, such frame is provided with equipments 200, one of them being shown, and which are comprised of a built-up tank R associated with a pump 210 or with any actuating gear capable of operating the stored fluid.

#### SHORT DESCRIPTION OF THE INVENTION

The applicant noticed that the volume of such equipments was particularly important and was harming the compactness criteria of the machine tool.

Taking stock of that fact, the applicant led researches leading to the improvement of the compactness of machine tools with respect to the volume of the functions of the latter.

Such researches led to the design of a machine tool adopting a particularly advantageous arrangement of the tanks of the equipments requiring such tanks inside the frame of the machine tool.

According to the main feature of the invention, the machine tool of the type that is provided with an armouring forming a fixed frame, the functioning of the machine tool requiring the presence of fluids, is remarkable in that the elements constituting the armouring forming the frame B are partitioned so as to ensure the storing of said fluids through the creation of closed volumes.

Such feature allows to contemplate the operation of any volume let free inside of the frame in order to create tanks for the storage of the fluids necessary to the good functioning of the machine tool.

For instance, it allows to contemplate the operation the

volume let free and defined inside of the tubes constituting the frame of a machine tool, by making it liquid proof so that a storing tank is created.

5 The design of a machine tool comprising in the constituting elements of its frame the tanks for storing the fluids necessary to its good functioning allows to contemplate the manufacturing of much more compact machine tools and the peripheral equipments of which would be capable of being less expensive at purchase as they are  
10 provided without tanks.

Such concern for compactness constitutes a particularly important criterion having an effect not only on the cost of transportation of the machine tool but also on the surface necessary for its installation.

15 Moreover, the use of the elements of the frame for the constitution of the tanks is advantageous in that it allows a better cooling of the fluids, especially the hydraulic fluids, as the fluid will be in contact with the whole metallic mass of the armouring of the frame, said  
20 frame being endowed with a surface for diffusion of the extra heat that is far greater than that of an independent and built-up tank.

The fundamental concepts of the invention having been set forth hereabove in their most elementary form, other  
25 details and features will be brought forth more clearly by reading the following description with respect to the attached drawings, giving as a non limiting example, an embodiment of a machine tool according to the invention.

Figure 1 represents a back global view of a machine tool  
30 known in the technological background.

Figure 2 represents a back global view with partial section of an embodiment of a machine tool according to the invention.

#### DESCRIPTION OF THE PREFERRED EMBODIMENTS

35 Such as shown on the drawing of Figure 1, the machining machine tool referenced M in its whole is of the type that

requires the presence of annex equipments 200 operating the fluids stored in the tanks R, said annex equipments 200 being linked by means of a frame 100 to the remaining of the machine tool M.

5 Such machine tool M is remarkable in that said frame 100 is manufactured (as hatched) so as to create a plurality of liquid proof compartments 130 capable of being used as tanks R for said fluids.

Such features are quite applicable to the frame of a high  
10 speed machining tool of the type that ensures the motions on at least three axis of a mobile element by means of linear motors.

As shown, said frame 100 is carrying boxes 110 and 130 containing said annex equipments 200 and is adopting the  
15 shape of a parallelepiped, at least a part of the volume of which is partitioned so as to form tanks R that are liquid proof among themselves.

Said frame 100 is provided, on its upper part and communicating with each tank R, with at least one  
20 interface input/output 140 for the connection of said tanks R with the built-up annex equipments 200, such as the shown pump 210.

According to a particularly advantageous embodiment, said frame 100 is partitioned by means of a central partition  
25 into two compartments 130 defining two tanks R, one of them being allocated to the hydraulic group and the other one to the cooling group. The juxtaposition of the tanks R of the fluids operated by such equipments allows to create an effect of heat exchange that ensures a thermic  
30 stability to the two fluids.

The comparison of Figure 1 representing prior art with Figure 2 shows the gain in compactness obtained on a machine tool M adopting an embodiment according to the invention by using the volume let free inside of an  
35 existing frame 100 as a tank R for storage of the fluid(s) necessary to the good functioning of the machine tool M.

Therefore, it is no longer necessary to build up a tank with the annex equipments 200 nor to plan for its bulkiness.

5 It is understood that the machine tool with a judicious arrangement of the elements for storing the fluids necessary to the functions of said machine tool, which have been described and represented hereabove, was so described and represented for publication rather than limitation purposes. Of course, various arrangements, 10 modifications and improvements may be brought to the above example, without for that matter going beyond the scope of the invention taken in its wider aspects and spirit.

Thus, any tube capable of being sealed at its extremities 15 may ensure the function of tank for storage of the fluids. Likewise, any type of volume capable of being partitioned and closed may be used for that function.

Moreover, according to a particularly advantageous embodiment, which is not shown, independent tanks are 20 pre-formed so as to be integrated into the width of said frame 100.

**CLAIMS**

1. Machine tool (M) of the type that comprises an  
armouring forming a fixed frame (B), the functioning of  
5 the machine tool (M) requiring the presence of fluids,  
wherein the elements constituting the armouring forming  
the frame (B) are partitioned so as to ensure the storage  
of said fluids by the creation of closed volumes.

2. Machining machine tool (M) of the type that  
10 requires the presence of annex equipments (200) operating  
the fluids stored in the tanks (R), said annex equipments  
(200) being linked by means of a frame (100) to the  
remaining of the machine tool (M) according to claim 1,  
wherein said frame (100) is manufactured so as to create  
15 in its width a plurality of liquid proof compartments  
(130) capable of being used as tanks (R) for fluids.

3. Machining machine tool (M) according to claims 1  
and 2, wherein said frame (100) is carrying boxes (110 and  
120) containing said annex equipments (200) and is  
20 adopting the shape of a parellelepiped, at least a part of  
the volume of which is partitioned so as to form tanks (R)  
that are liquid proof among themselves.

4. Machine tool (M) according to claim 3, wherein  
said frame (100) is provided, on its upper part and  
25 communicating with each tank, with at least one interface  
input/output (140) for the connection of said tanks (R)  
with said built-up annex equipments (200).

5. Machine tool (M) according to claim 3, wherein  
independent tanks (R) are pre-formed so as to be  
30 integrated into the width of said frame (100).



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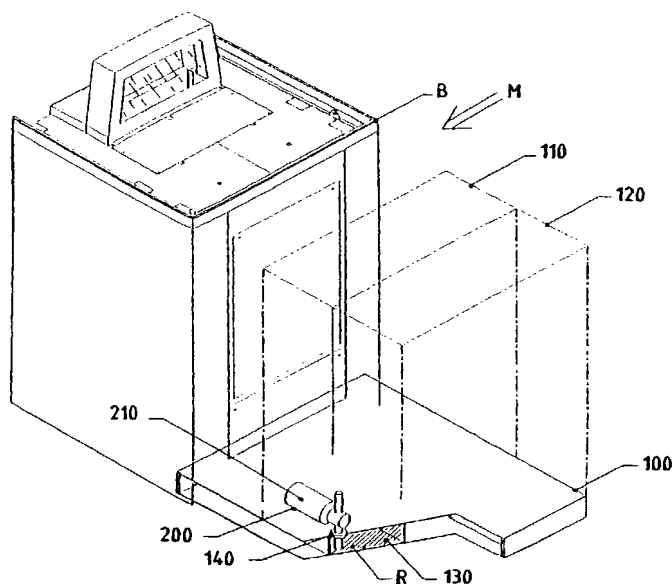
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99/11791 10 septembre 1999 (10.09.1999) FR
- (71) Déposant (pour tous les États désignés sauf US): **RE-NAULT AUTOMATION COMAU** [FR/FR]; 60, allée de la Forêt, F-92365 Meudon la Forêt Cedex (FR).
- (72) Inventeur; et
- (75) Inventeur/Déposant (pour US seulement): **EFFORSAT, Hervé** [FR/FR]; Rieu Marty, F-81710 Saix (FR).
- (74) Mandataire: **CABINET DELHAYE**; Rue du Centre, Boîte postale 30, F-81370 Saint Sulpice (FR).
- (81) États désignés (national): AE, AG, AL, AM, AT, AT (modèle d'utilité), AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, CZ (modèle d'utilité), DE, DE (modèle d'utilité), DK, DK (modèle d'utilité), DM, DZ, EE, EE (modèle d'utilité), ES, FI, FI (modèle d'utilité), GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK (modèle d'utilité), SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

[Suite sur la page suivante]

(54) Title: MACHINE-TOOL WITH ADEQUATE ARRANGEMENT OF ELEMENTS STORING FLUIDS REQUIRED FOR VARIOUS OPERATIONS OF SAID MACHINE-TOOL

(54) Titre: MACHINE-OUTIL D'USINAGE A DISPOSITION JUDICIEUSE DES ELEMENTS DE STOCKAGE DE FLUIDES NECESSAIRES AUX DIFFERENTES SERVITUDES DE LADITE MACHINE-OUTIL



(57) Abstract: The invention concerns a machine-tool (M) comprising a frame forming a fixed mount (B), whereof the operation requires the presence of fluids. The invention is characterised in that the elements constituting the frame forming the mount (B) are divided into sections so as to form reservoirs (B) for said fluids. The invention is useful for machining and for configuring machine-tool mount frames.

[Suite sur la page suivante]



WO 01/19564 A1

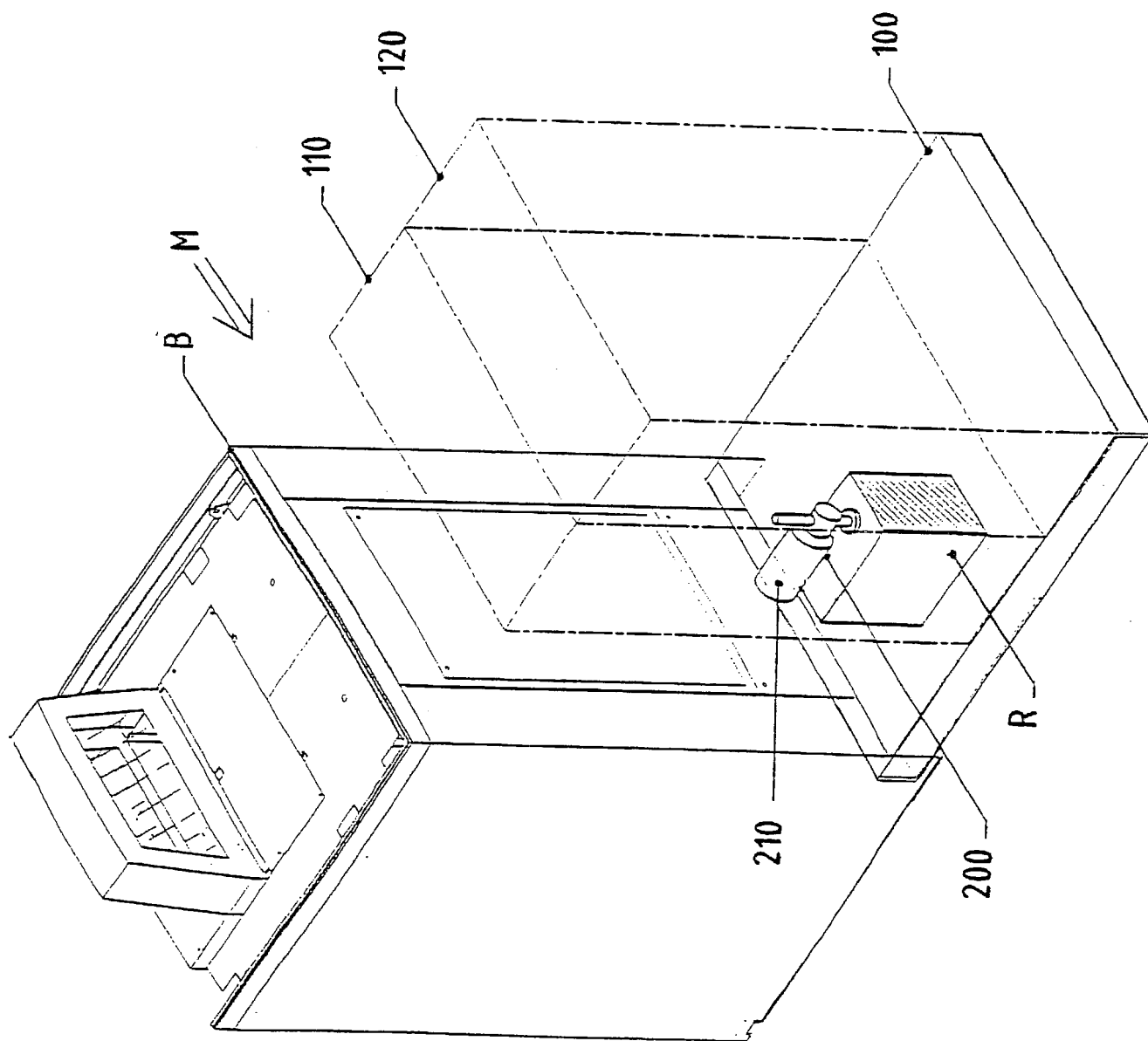


Fig. 1

Fig. 2

# Declaration and Power of Attorney for Patent Application

## Déclaration et Pouvoirs pour Demande de Brevet

### French Language Declaration

En tant l'inventeur nommé ci-après, je déclare par le présent acte que:

As a below named inventor, I hereby declare that:

Mon domicile, mon adresse postale et ma nationalité sont ceux figurant ci-dessous à côté de mon nom.

My residence, post office address and citizenship are as stated next to my name.

Je crois être le premier inventeur original et unique (si un seul nom est mentionné ci-dessous), ou l'un des premiers co-inventeurs originaux (si plusieurs noms sont mentionnés ci-dessous) de l'objet revendiqué, pour lequel une demande de brevet a été déposée concernant l'invention intitulée

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

MACHINE-OUTIL D'USINAGE A DISPOSITION  
JUDICIEUSE DES ELEMENTS DE STOCKAGE  
DE FLUIDES NECESSAIRES AUX DIFFERENTES  
SERVITUDES DE LADITE MACHINE-OUTIL

et dont la description est fournie ci-joint à moins

the specification of which:

☐ ci-joint

☐ is attached hereto.

☒ a été déposée le 06 septembre 2000

☐ was filed on \_\_\_\_\_

sous le numéro de demande des Etats-Unis ou le  
numéro de demande international PCT

as United States Application Number or PCT  
International Application Number

\_\_\_\_\_ et modifiée le

\_\_\_\_\_ and was amended on

\_\_\_\_\_ (le cas échéant).

\_\_\_\_\_ (if applicable).

Je déclare par le présent acte avoir passé en revue et compris le contenu de la description ci-dessus, revendications comprises, telles que modifiées par toute modification dont il aura été fait référence ci-dessus.

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

Je reconnais devoir divulguer toute information pertinente à la brevetabilité, comme défini dans le Titre 37, § 1.56 du Code fédéral des réglementations.

I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56.

## French Language Declaration

Je revendique par le présent acte avoir la priorité étrangère, en vertu du Titre 35, § 119(a)-(d) ou § 365(b) du Code des Etats-Unis, sur toute demande étrangère de brevet ou certificat d'inventeur ou, en vertu du Titre 35, § 365(a) du même Code, sur toute demande internationale PCT désignant au moins un pays autre que les Etats-Unis et figurant ci-dessous et, en cochant la case, j'ai aussi indiqué ci-dessous toute demande étrangère de brevet, tout certificat d'inventeur ou toute demande internationale PCT ayant une date de dépôt précédant celle de la demande à propos de laquelle une priorité est revendiquée.

I hereby claim foreign priority under Title 35, United States Code, § 119(a)-(d) or § 365(b) of any foreign application(s) for patent or inventor's certificate, or § 365(a) of any PCT International application which designated at least one country other than the United States, listed below, and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or PCT International application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application(s)  
Demande(s) de brevet antérieure(s) dans un autre pays.

Priority claimed  
Droit de priorité  
revendiqué

9911791 FRANCE  
(Number) (Country)  
(Numéro) (Pays)

10 septembre 1999  
(Day/Month/Year Filed)  
(Jour/Mois/Année de dépôt)

☒ ☐  
Yes No  
Oui Non

\_\_\_\_\_  
(Number) (Country)  
(Numéro) (Pays)

\_\_\_\_\_  
(Day/Month/Year Filed)  
(Jour/Mois/Année de dépôt)

☐ ☐  
Yes No  
Oui Non

Je revendique par le présent acte tout bénéfice, en vertu du Titre 35, § 119(e) du Code des Etats-Unis, de toute demande de brevet provisoire effectuée aux Etats-Unis et figurant ci-dessous.

I hereby claim the benefit under Title 35, United States Code, § 119(e) of any United States provisional application(s) listed below.

\_\_\_\_\_  
(Application No.)  
(N° de demande)

\_\_\_\_\_  
(Filing Date)  
(Date de dépôt)

\_\_\_\_\_  
(Application No.)  
(N° de demande)

\_\_\_\_\_  
(Filing Date)  
(Date de dépôt)

Je revendique par le présent acte tout bénéfice, en vertu du Titre 35, § 120 du Code des Etats-Unis, de toute demande de brevet effectuée aux Etats-Unis, ou en vertu du Titre 35, § 365(c) du même Code, de toute demande internationale PCT désignant les Etats-Unis et figurant ci-dessous et, dans la mesure où l'objet de chacune des revendications de cette demande de brevet n'est pas divulgué dans la demande antérieure américaine ou internationale PCT, en vertu des dispositions du premier paragraphe du Titre 35, § 112 du Code des Etats-Unis, je reconnais devoir divulguer toute information pertinente à la brevetabilité, comme défini dans le Titre 37, § 1.56 du Code fédéral des réglementations, dont j'ai pu disposer entre la date de dépôt de la demande antérieure et la date de dépôt de la demande nationale ou internationale PCT de la présente demande.

I hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s), or § 365(c) of any PCT International application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56 which became available between the filing date of the prior application and the national or PCT International filing date of this application.

PCT/EROO/02447  
(Application No.)  
(N° de demande)

06 septembre 2000  
(Filing Date)  
(Date de dépôt)

\_\_\_\_\_  
(Status) (patented, pending, abandoned)  
(Statut) (breveté, en cours d'examen, abandonné)

\_\_\_\_\_  
(Application No.)  
(N° de demande)

\_\_\_\_\_  
(Filing Date)  
(Date de dépôt)

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(Status) (patented, pending, abandoned)  
(Statut) (breveté, en cours d'examen, abandonné)

Je déclare par le présent acte que toute déclaration ci-incluse est, à ma connaissance, véridique et que toute déclaration formulée à partir de renseignements ou de suppositions est tenue pour véridique; et de plus, que toutes ces déclarations ont été formulées en sachant que toute fausse déclaration volontaire ou son équivalent est passible d'une amende ou d'une incarcération, ou des deux, en vertu de la Section 1001 du Titre 18 du Code des Etats-Unis, et que de telles déclarations volontairement fausses risquent de compromettre la validité de la demande de brevet ou du brevet délivré à partir de celle-ci.

I hereby declare that all statements made herein of my own knowledge and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

## French Language Declaration

POUVOIRS: En tant que l'inventeur cité, je désigne par la présente l'(les) avocat(s) et/ou agent(s) suivant(s) pour qu'ils poursuive(nt) la procédure de cette demande de brevet et traite(nt) toute affaire s'y rapportant avec l'Office des brevets et des marques: (mentionner le nom et le numéro d'enregistrement).

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith: (list name and registration number)

Addresser toute correspondance à:

Send Correspondence to:

Addresser tout appel téléphonique à:  
(nom et numéro de téléphone)

Direct Telephone calls to: (name and telephone number)

1-00		Nom complet de l'unique ou premier inventeur		Full name of sole or first inventor	
EFFORSAT Hervé					
Signature de l'inventeur		Date		Inventor's signature	
EFFORSAT Hervé <i>[Signature]</i>		01/03/2002			
Domicile		Rieu Marty, 81710 SAIX, FRANCE		Residence	
Nationalité		Française FRX		Citizenship	
Adresse Postale		Rieu Marty, 81710 SAIX, FRANCE		Post Office Address	
Nom complet du second co-inventeur, le cas échéant				Full name of second joint inventor, if any	
Signature de l'inventeur		Date		Second inventor's signature	
Domicile				Residence	
Nationalité				Citizenship	
Adresse Postale				Post Office Address	

(Fournir les mêmes renseignements et la signature de tout co-inventeur supplémentaire.)

(Supply similar information and signature for third and subsequent joint inventors.)

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JC10 Rec'd PCT/PTO 11 MAR 2002



SUGHRUE MION, PLLC

Entering National Stage of PCT/FR00/02447  
Attorney Docket Q68739

The Commissioner is hereby authorized to charge any fees under 37 C.F.R. §§ 1.16, 1.17 and 1.492 which may be required during the entire pendency of the application to Deposit Account No. 19-4880. A duplicate copy of this transmittal letter is attached.

Priority is claimed from:

Country

FRANCE

Application No

FR9911791

Filing Date

September 10, 1999

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Robert V. Sloan', written over a horizontal line.

Robert V. Sloan

Registration No. 22,775

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Date: March 11, 2002